SEQUENCE LISTING

<110> Kirschner, Marc W.
Kinoshita, Noriyuki

<120> Receptor-Ligand Assay

<130> HU95-01A2

<140> 08/776,207
<141> 1997-06-23

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<150> 08/441,629
<151> 1995-05-15

<150> 08/279,217
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<212> DNA
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<400> 1

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aaaccatcaa agacagaaac atccggttta aaaacaactg caaattccgc aacacctta     300
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gacccccaaa ttgtgcttat aatcaaacaa gaacaactgg ggtcattaat atcacttgtg    480
aaaacaatta ccctgtgcac tttgctgggt acaaatcaag cttctgtgct tcatatttct    540
catgtgcctt aatagtaata actgttttcc tgctcagcca gctactgctc cctgctatga    600
gatgatgccc agaaacggga gtatcaatag ctaaaactag aaggactgat agtgatggat    660
gattgttcct aagtcattta gagatctacc tgtgttcact tccaaacaaa gaagacatag    720
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<210> 2
<211> 169
<212> PRT
<213> Xenopus laevis

<400> 2

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Met Leu Asp Ile Met Val Ala Val Leu Ser Ser Leu Leu Thr Ile Cys
 1               5                  10                  15
Ile Ile Leu Ser Phe Ser Leu Pro Ser Asp Thr Gln Asn Ile Asn Ala
            20                  25                  30
Phe Met Glu Lys His Ile Val Lys Glu Gly Ala Glu Thr Asn Cys Asn
        35                  40                  45
Gln Thr Ile Lys Asp Arg Asn Ile Arg Phe Lys Asn Asn Cys Lys Phe
    50                  55                  60
Arg Asn Thr Phe Ile His Asp Thr Asn Gly Lys Lys Val Lys Glu Met
65                  70                  75                  80
Cys Ala Gly Ile Val Lys Ser Thr Phe Val Ile Ser Lys Glu Leu Leu
                85                  90                  95
Pro Leu Thr Asp Cys Leu Leu Met Gly Arg Thr Ala Arg Pro Pro Asn
            100                 105                 110
Cys Ala Tyr Asn Gln Thr Arg Thr Thr Gly Val Ile Asn Ile Thr Cys
        115                 120                 125
Glu Asn Asn Tyr Pro Val His Phe Ala Gly Tyr Lys Ser Ser Phe Cys
    130                 135                 140
Ala Ser Tyr Ser Pro Cys Ala Leu Ile Val Ile Thr Val Phe Leu Leu
145                 150                 155                 160
Ser Gln Leu Leu Leu Pro Ala Met Arg
                165
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<210> 3
<211> 1633
<212> DNA
<213> Xenopus Laevis

<400> 3

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attttctctg ctaaacattt tatcaagcat tgcaaaggtg aaacttgcat gggactgaac      180
tgtaatgacc caaggttatt ggaggcaatt aagagcaaca caatcaatca gctcttgcat      240
gatacaatta atgccaccca tggaaagagt ccaccaaaat ccactaaaac cttgcccttc      300
ttgggtatca cagacagtaa gaaattgaat agaaaatgct gtcagaatgg aggcacttgt      360
ttctttgggga ccttttgcat ctgccctaag caatttactg gtcggcactg tgaacatgaa      420
aggaggccag caagctgctc cggtgttccc catggagact ggatccgtca gggctgcttg      480
ctgtgtagat gtgtgtctgg tgtcctacac tgcttcaagc ccgagtctga ggactgtgat      540
gttgtgcatg aaaaaaacat gagatcgggg gtcccgagaa tgcagctcag cttaatcatc      600
tattgctttcc ttactgcaaa cttgtttttac cacatagttt ggcatctgaa tattggactt      660
taacagagta acttgagtct gccagtcagg ttcagattgc agacgtctgt gtctacactg      720
cactttcaat ttgtgaaccc attttgccag gattatgctt gaagtatatg gctatctttcc      780
acccctggaa tcctggaaaa tatgcagaaa ctatacaatg ccttatttct attggttgtt      840
tcataaaata actttttttta taggatgatg tgtatagtgg ccagaatggg tttacagtac      900
ttccaagcac tggcgttggt tcaaaatagc tactgggttc ttgctctttg ctgcatgttg      960
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tttttattaa ttgacaaaga gaacaaagta tctaggaaca ttttacaaat attgtcctac    1140
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agccataaaa cgattttgtg agtgtgtgtg tgtgactgca tcccatttta ttcattatgc    1260
aaacactttg caaatgattg tgcagcaatg taagtgctag cctgtggtca acagtgctga    1320
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ccccttaaa ttctattttt ctacgggcaa gtaaatctaa actggtaaag taccttcttt    1440
taaggaaatg aatcactgaa tgttataatt ccagtttcag gccacagaca attaatgaca    1500
gctcagggaa taatacaatt gcccatgttt gatgcaccta atgtactgta tgtattacag    1560
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<210> 4
<211> 190
<212> PRT
<213> Xenopus laevis

<400> 4

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Met Gln Phe Leu Arg Phe Leu Ala Ile Leu Ile Phe Ser Ala Lys His
 1               5                  10                  15
Phe Ile Lys His Cys Lys Gly Glu Thr Cys Met Gly Leu Asn Cys Asn
            20                  25                  30
Asp Pro Arg Leu Leu Glu Ala Ile Lys Ser Asn Thr Ile Asn Gln Leu
        35                  40                  45
Leu His Asp Thr Ile Asn Ala Thr His Gly Lys Ser Pro Pro Lys Ser
    50                  55                  60
Thr Lys Thr Leu Pro Phe Leu Gly Ile Thr Asp Ser Lys Lys Leu Asn
65                  70                  75                  80
Arg Lys Cys Cys Gln Asn Gly Gly Thr Cys Phe Leu Gly Thr Phe Cys
                85                  90                  95
Ile Cys Pro Lys Gln Phe Thr Gly Arg His Cys Glu His Glu Arg Arg
            100                 105                 110
Pro Ala Ser Cys Ser Gly Val Pro His Gly Asp Trp Ile Arg Gln Gly
        115                 120                 125
Cys Leu Leu Cys Arg Cys Val Ser Gly Val Leu His Cys Phe Lys Pro
    130                 135                 140
Glu Ser Glu Asp Cys Asp Val Val His Glu Lys Asn Met Arg Ser Gly
145                 150                 155                 160
Val Pro Arg Met Gln Leu Ser Leu Ile Ile Tyr Cys Phe Leu Thr Ala
                165                 170                 175
Asn Leu Phe Tyr His Ile Val Trp His Leu Asn Ile Gly Leu
            180                 185                 190
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<210> 5
<211> 124
<212> PRT
<213> Bovine

<400> 5
Ala Gln Asp Asp Tyr Arg Tyr Ile His Phe Leu Thr Gln His Tyr Asp
1               5                   10                  15
Ala Lys Pro Lys Gly Arg Asn Asp Glu Tyr Cys Phe Asn Met Met Lys
            20                  25                  30
Asn Arg Arg Thr Arg Pro Cys Lys Asp Arg Asn Thr Phe Ile His Gly
        35                  40                  45
Asn Lys Asn Asp Ile Lys Ala Ile Cys Glu Asp Arg Asn Gly Gln Pro
    50                  55                  60
Tyr Arg Gly Asp Leu Arg Ile Ser Lys Ser Glu Phe Gln Ile Thr Ile
65                  70                  75                  80
Cys Lys His Lys Gly Gly Ser Ser Arg Pro Pro Cys Arg Tyr Gly Ala
                85                  90                  95
Thr Glu Asp Ser Arg Val Ile Val Val Gly Cys Glu Asn Gly Leu Pro
            100                 105                 110
Val His Phe Asp Glu Ser Phe Ile Thr Arg Pro His
        115                 120

<210> 6
<211> 131
<212> PRT
<213> Chinese Hamster

<400> 6
Val Gln Pro Ser Leu Gly Lys Glu Ser Ala Ala Met Lys Phe Glu Arg
1               5                   10                  15
Gln His Met Asp Ser Thr Val Ala Thr Ser Ser Ser Pro Thr Tyr Cys
            20                  25                  30
Asn Gln Met Met Lys Arg Arg Asn Met Thr Gln Gly Gln Glu Cys Lys
        35                  40                  45
Pro Val Asn Thr Phe Val His Glu Ser Leu Ala Asp Val His Ala Val
    50                  55                  60
Cys Ser Gln Glu Asn Val Lys Cys Lys Asn Gly Lys Ser Asn Cys Tyr
65                  70                  75                  80
Lys Ser His Ser Ala Leu His Ile Thr Asp Cys Arg Leu Lys Gly Asn
                85                  90                  95
Ala Lys Tyr Pro Asn Cys Asp Tyr Gln Thr Ser Gln His Gln Lys His
            100                 105                 110
Ile Ile Val Ala Cys Glu Gly Asn Pro Phe Val Pro Val His Phe Asp
        115                 120                 125
Ala Thr Val
    130
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<210> 7
<211> 160
<212> PRT
<213> Mus musculus

<400> 7
Met Gly Tyr Phe Ser Ser Ser Val Val Leu Leu Val Ala Ile Ser Ser
1 5 10 15
Ala Phe Glu Phe Gly Pro Val Ala Gly Arg Asp Leu Ala Ile Arg Asp
20 25 30
Asn Ser Ile Trp Asp Gln Lys Glu Pro Ala Val Arg Asp Arg Ser Phe
35 40 45
Gln Phe Val Pro Ser Val Gly Ile Gln Asn Ser Lys Ser Leu Asn Lys
50 55 60
Thr Cys Cys Leu Asn Gly Gly Thr Cys Ile Leu Gly Ser Phe Cys Ala
65 70 75 80
Cys Pro Pro Ser Phe Tyr Gly Arg Asn Cys Glu His Asp Val Arg Lys
85 90 95
Glu His Cys Gly Ser Ile Leu His Gly Thr Trp Leu Pro Lys Lys Cys
100 105 110
Ser Leu Cys Arg Cys Trp His Gly Gln Leu His Cys Leu Pro Gln Thr
115 120 125
Phe Leu Pro Gly Cys Asp Gly His Val Met Asp Gln Asp Leu Lys Ala
130 135 140
Ser Arg Thr Pro Cys Gln Thr Pro Ser Val Thr Thr Thr Phe Met Leu
145 150 155 160

<210> 8
<211> 150
<212> PRT
<213> Homo sapien

<400> 8
Met Ala Ala Gly Ser Ile Thr Thr Leu Pro Ala Leu Pro Glu Asp Gly
1 5 10 15
Gly Ser Gly Ala Phe Pro Pro Gly His Phe Lys Asp Pro Lys Arg Leu
20 25 30
Tyr Cys Lys Asn Gly Gly Phe Phe Leu Arg Ile His Pro Asp Gly Arg
35 40 45
Val Asp Gly Val Arg Glu Lys Ser Asp Pro His Ile Lys Leu Gln Leu
50 55 60
Gln Ala Glu Glu Arg Gly Val Val Ser Ile Lys Gly Val Cys Ala Asn
65 70 75 80
Arg Tyr Leu Ala Met Lys Glu Asp Gly Arg Leu Leu Ala Ser Lys Cys
85 90 95
Val Thr Asp Glu Cys Phe Phe Phe Glu Arg Leu Glu Ser Asn Asn Tyr
100 105 110
Asn Thr Tyr Arg Ser Arg Lys Tyr Thr Ser Trp Tyr Val Ala Leu Lys
115 120 125
Arg Thr Gly Gln Tyr Lys Leu Gly Ser Lys Thr Gly Pro Gly Gln Lys
130 135 140

Ala Ile Leu Phe Leu Pro
145 150

<210> 9
<211> 149
<212> PRT
<213> Bovine

<400> 9
Met Ala Glu Gly Glu Thr Thr Thr Phe Thr Ala Leu Thr Glu Lys Phe
1 5 10 15
Asn Leu Pro Leu Gly Asn Tyr Lys Lys Pro Lys Leu Leu Tyr Cys Ser
20 25 30
Asn Gly Gly Tyr Phe Leu Arg Ile Leu Pro Asp Gly Thr Val Asp Gly
35 40 45
Thr Lys Asp Arg Ser Asp Gln His Ile Gln Leu Gln Leu Cys Ala Glu
50 55 60
Ser Ile Gly Glu Val Tyr Ile Lys Ser Thr Glu Thr Gly Gln Phe Leu
65 70 75 80
Ala Met Asp Thr Asp Gly Leu Leu Tyr Gly Ser Gln Thr Pro Asn Glu
85 90 95
Glu Cys Leu Phe Leu Glu Arg Leu Glu Glu Asn His Tyr Asn Thr Tyr
100 105 110
Ile Ser Lys Lys His Ala Glu Lys His Trp Phe Val Gly Leu Lys Lys
115 120 125
Asn Gly Arg Ser Lys Leu Gly Pro Arg Thr His Phe Gly Gln Lys Ala
130 135 140
Ile Leu Phe Leu Pro
145

<210> 10
<211> 206
<212> PRT
<213> Homo sapiens

<400> 10
Met Ser Gly Pro Gly Thr Ala Ala Val Ala Leu Leu Pro Ala Val Leu
1 5 10 15
Leu Ala Leu Leu Ala Pro Trp Ala Gly Arg Gly Gly Ala Ala Ala Pro
20 25 30
Thr Ala Pro Asn Gly Thr Leu Glu Ala Glu Leu Glu Arg Arg Trp Glu
35 40 45
Ser Leu Val Ala Leu Ser Leu Ala Arg Leu Pro Val Ala Ala Gln Pro
50 55 60
Lys Glu Ala Ala Val Gln Ser Gly Ala Gly Asp Tyr Leu Leu Gly Ile
65 70 75 80
Lys Arg Leu Arg Arg Leu Tyr Cys Asn Val Gly Ile Gly Phe His Leu
85 90 95
Gln Ala Leu Pro Asp Gly Arg Ile Gly Gly Ala His Ala Asp Thr Arg
100 105 110

```
Asp Ser Leu Leu Glu Leu Ser Pro Val Glu Arg Gly Val Val Ser Ile
        115                 120                 125
Phe Gly Val Ala Ser Arg Phe Phe Val Ala Met Ser Ser Lys Gly Lys
    130                 135                 140
Leu Tyr Gly Ser Pro Phe Phe Thr Asp Glu Cys Thr Phe Lys Glu Ile
145                 150                 155                 160
Leu Leu Pro Asn Asn Tyr Asn Ala Tyr Glu Ser Tyr Lys Tyr Pro Gly
                165                 170                 175
Met Phe Ile Ala Leu Ser Lys Asn Gly Lys Thr Lys Lys Gly Asn Arg
            180                 185                 190
Val Ser Pro Thr Met Lys Val Thr His Phe Leu Pro Arg Leu
        195                 200                 205

      <210> 11
      <211> 187
      <212> PRT
      <213> Xenopus laevis

      <400> 11
Met Thr Val Pro Ser Ala Leu Val Pro Ile Leu Leu Leu Gly Thr Ala
 1               5                  10                  15
Ala Val Met Val Gln Cys Leu Pro Leu Ser Phe Gln Arg Asn Asp Thr
            20                  25                  30
Val Glu Arg Arg Trp Glu Thr Leu Phe Ser Arg Ser Met Gly Glu Lys
        35                  40                  45
Lys Asp Thr Ser Arg Asp Ser Asp Tyr Leu Leu Gly Ile Lys Arg Gln
    50                  55                  60
Arg Arg Leu Tyr Cys Asn Val Gly Ile Gly Phe His Ile Gln Val Leu
65                  70                  75                  80
Pro Asp Gly Arg Ile Asn Gly Met His Ser Glu Asn Arg Tyr Ser Leu
                85                  90                  95
Leu Glu Leu Ser Pro Val Glu Val Gly Val Val Ser Leu Tyr Gly Val
            100                 105                 110
Lys Ser Gly Met Phe Val Ala Met Asn Ala Lys Gly Lys Leu Tyr Gly
        115                 120                 125
Ser Arg Tyr Phe Asn Glu Glu Cys Lys Phe Lys Glu Thr Leu Leu Pro
    130                 135                 140
Asn Asn Tyr Asn Ala Tyr Glu Ser Arg Lys Tyr Pro Gly Met Tyr Ile
145                 150                 155                 160
Ala Leu Gly Lys Asn Gly Arg Thr Lys Lys Gly Asn Arg Val Ser Pro
                165                 170                 175
Thr Met Thr Leu Thr His Phe Leu Pro Arg Ile
            180                 185
```

<210> 12
<211> 198
<212> PRT
<213> Homo sapien

<400> 12
Met Ser Arg Gly Ala Gly Arg Leu Gln Gly Thr Leu Trp Ala Leu Val
1 5 10 15
Phe Leu Gly Ile Leu Val Gly Met Val Val Pro Ser Pro Ala Gly Thr
20 25 30
Arg Ala Asn Asn Thr Leu Leu Asp Ser Arg Gly Trp Gly Thr Leu Leu
35 40 45
Ser Arg Ser Arg Ala Gly Leu Ala Gly Glu Ile Ala Gly Val Asn Trp
50 55 60
Glu Ser Gly Tyr Leu Val Gly Ile Lys Arg Gln Arg Arg Leu Tyr Cys
65 70 75 80
Asn Val Gly Ile Gly Phe His Leu Gln Val Leu Pro Asp Gly Arg Ile
85 90 95
Ser Gly Thr His Glu Glu Asn Pro Tyr Ser Leu Leu Glu Ile Ser Thr
100 105 110
Val Glu Arg Gly Val Val Ser Leu Phe Gly Val Arg Ser Ala Leu Phe
115 120 125
Val Ala Met Asn Ser Lys Gly Arg Leu Tyr Ala Thr Pro Ser Phe Gln
130 135 140
Glu Glu Cys Lys Phe Arg Glu Thr Leu Leu Pro Asn Asn Tyr Asn Ala
145 150 155 160
Tyr Glu Ser Asp Leu Tyr Gln Gly Thr Tyr Ile Ala Leu Ser Lys Tyr
165 170 175
Gly Arg Val Lys Arg Gly Ser Lys Val Ser Pro Ile Met Thr Val Thr
180 185 190
His Phe Leu Pro Arg Ile
195

<210> 13
<211> 219
<212> PRT
<213> Homo sapien

<400> 13
Met Ser Leu Ser Phe Leu Leu Leu Leu Phe Phe Ser His Leu Ile Leu
1 5 10 15
Ser Ala Trp Ala His Gly Glu Lys Arg Leu Ala Pro Lys Gly Gln Pro
20 25 30
Gly Pro Ala Ala Thr Asp Arg Asn Pro Ile Gly Ser Ser Ser Arg Ser
35 40 45
Ser Ser Ser Ala Met Ser Ser Ser Ser Ala Ser Ser Ser Pro Ala Ala
50 55 60
Ser Leu Gly Ser Gln Gly Ser Gly Leu Glu Gln Ser Ser Phe Gln Trp
65 70 75 80
Ser Pro Ser Gly Arg Arg Thr Gly Ser Leu Tyr Cys Arg Val Gly Ile
85 90 95

```
Gly Phe His Leu Gln Ile Tyr Pro Asp Gly Lys Val Asn Gly Ser His
            100                 105                 110
Glu Ala Asn Met Leu Ser Val Leu Glu Ile Phe Ala Val Ser Gln Gly
        115                 120                 125
Ile Val Gly Ile Arg Gly Val Phe Ser Asn Lys Phe Leu Ala Met Ser
    130                 135                 140
Lys Lys Gly Lys Leu His Ala Ser Ala Lys Phe Thr Asp Asp Cys Lys
145                 150                 155                 160
Phe Arg Glu Arg Phe Gln Glu Asn Ser Tyr Asn Thr Tyr Ala Ser Ala
                165                 170                 175
Ile His Arg Thr Glu Lys Thr Gly Arg Glu Trp Tyr Val Ala Leu Asn
            180                 185                 190
Lys Arg Gly Lys Ala Lys Arg Gly Cys Ser Pro Arg Val Lys Pro Gln
        195                 200                 205
His Ile Ser Thr His Phe Leu Pro Arg Phe Lys
    210                 215
```

<210> 14
<211> 190
<212> PRT
<213> Homo sapien

<400> 14

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Met His Lys Trp Ile Leu Thr Trp Ile Leu Pro Thr Leu Leu Tyr Arg
 1               5                  10                  15
Ser Cys Phe His Ile Ile Cys Leu Val Gly Thr Ile Ser Leu Ala Cys
            20                  25                  30
Asn Asp Met Thr Pro Glu Gln Met Ala Thr Asn Val Asn Cys Ser Ser
        35                  40                  45
Pro Glu Arg His Thr Arg Ser Tyr Asp Tyr Met Glu Gly Gly Asp Ile
    50                  55                  60
Arg Val Arg Arg Leu Phe Cys Arg Thr Gln Trp Tyr Leu Arg Ile Asp
65                  70                  75                  80
Lys Arg Gly Lys Val Lys Gly Thr Gln Glu Met Lys Asn Asn Tyr Asn
                85                  90                  95
Ile Met Glu Ile Arg Thr Val Ala Val Gly Ile Val Ala Ile Lys Gly
            100                 105                 110
Val Glu Ser Glu Phe Tyr Leu Ala Met Asn Lys Glu Gly Lys Leu Tyr
        115                 120                 125
Ala Lys Lys Glu Cys Asn Glu Asp Cys Asn Phe Lys Glu Leu Ile Leu
    130                 135                 140
Glu Asn His Tyr Asn Thr Tyr Ala Ser Ala Lys Trp Thr His Asn Gly
145                 150                 155                 160
Gly Glu Met Phe Val Ala Leu Asn Gln Lys Gly Ile Pro Val Arg Gly
                165                 170                 175
Lys Lys Thr Lys Lys Glu Gln Lys Thr Ala His Phe Leu Pro
            180                 185                 190
```

<210> 15
<211> 183
<212> PRT
<213> Mus musculus

<400> 15

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Met Gly Leu Ile Trp Leu Leu Leu Leu Ser Leu Leu Glu Pro Ser Trp
 1               5                  10                  15
Pro Thr Thr Gly Pro Gly Thr Arg Leu Arg Arg Asp Ala Gly Gly Arg
            20                  25                  30
Gly Gly Val Tyr Glu His Leu Gly Gly Ala Pro Arg Arg Arg Lys Leu
        35                  40                  45
Tyr Cys Ala Thr Lys Tyr His Leu Gln Leu His Pro Ser Gly Arg Val
    50                  55                  60
Asn Gly Ser Leu Glu Asn Ser Ala Tyr Ser Ile Leu Glu Ile Thr Ala
65                  70                  75                  80
Val Glu Val Gly Val Val Ala Ile Lys Gly Leu Phe Ser Gly Arg Tyr
                85                  90                  95
Leu Ala Met Asn Lys Arg Gly Arg Leu Tyr Ala Ser Asp His Tyr Asn
            100                 105                 110
Ala Glu Cys Glu Phe Val Glu Arg Ile His Glu Leu Gly Tyr Asn Thr
        115                 120                 125
Tyr Ala Ser Arg Leu Tyr Arg Thr Gly Ser Ser Gly Pro Gly Ala Gln
    130                 135                 140
Arg Gln Pro Gly Ala Gln Arg Pro Trp Tyr Val Ser Val Asn Gly Lys
145                 150                 155                 160
Gly Arg Pro Arg Arg Gly Phe Lys Thr Arg Arg Thr Gln Lys Ser Ser
                165                 170                 175
Leu Phe Leu Pro Arg Val Leu
            180
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<210> 16
<211> 190
<212> PRT
<213> Homo sapien

<400> 16

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Met Ala Pro Leu Gly Glu Val Gly Asn Tyr Phe Gly Val Gln Asp Ala
 1               5                  10                  15
Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu
            20                  25                  30
Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly
        35                  40                  45
Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg
    50                  55                  60
Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly
65                  70                  75                  80
Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu
                85                  90                  95
Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser
            100                 105                 110
```

```
Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu
        115                 120                 125
Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp
    130                 135                 140
Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg
145                 150                 155                 160
Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr
                165                 170                 175
Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg
            180                 185                 190
```

<210> 17
<211> 167
<212> PRT
<213> Mus musculus

<400> 17

```
Met Gly Ser Pro Arg Ser Ala Leu Ser Cys Leu Leu Leu His Leu Leu
 1               5                  10                  15
Val Leu Cys Leu Gln Ala Gln His Val Arg Glu Gln Ser Leu Val Thr
            20                  25                  30
Asp Gln Leu Ser Arg Arg Leu Ile Arg Thr Tyr Gln Leu Tyr Ser Arg
        35                  40                  45
Thr Ser Gly Lys His Val Gln Val Leu Ala Asn Lys Arg Ile Asn Ala
    50                  55                  60
Met Ala Glu Asp Gly Asp Pro Phe Ala Lys Leu Ile Val Glu Thr Asp
65                  70                  75                  80
Thr Phe Gly Ser Arg Val Arg Val Arg Gly Ala Glu Thr Gly Leu Tyr
                85                  90                  95
Ile Cys Met Asn Lys Lys Gly Lys Leu Ile Ala Lys Ser Asn Gly Lys
            100                 105                 110
Gly Lys Asp Cys Val Phe Thr Glu Ile Val Leu Glu Asn Asn Tyr Thr
        115                 120                 125
Ala Leu Gln Asn Ala Lys Tyr Glu Gly Trp Tyr Met Ala Phe Thr Arg
    130                 135                 140
Lys Gly Arg Pro Arg Lys Gly Ser Lys Thr Arg Gln His Gln Arg Glu
145                 150                 155                 160
Val His Phe Met Lys Arg Leu
                165
```

<210> 18
<211> 158
<212> PRT
<213> Artificial Sequence

<220>
<223> artificial

<400> 18

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Met Ala Leu Leu Leu Leu Leu Leu Val Pro Gly Pro Gly Ser Thr Thr
 1               5                  10                  15
Thr Asn Asp Ala Leu Leu Glu Ser Arg Gly Ser Ala Ala Arg Asp Leu
            20                  25                  30
Gly Lys Lys Arg Thr Arg Arg Leu Tyr Cys Arg Val Gly Gly Phe His
        35                  40                  45
Leu Gln Ile Leu Pro Asp Gly Arg Val Asn Gly Thr His Glu Ser Asn
    50                  55                  60
Arg Tyr Ser Leu Leu Glu Leu Ser Ala Val Glu Val Gly Val Val Ser
65                  70                  75                  80
Ile Lys Gly Val Glu Ser Gly Leu Phe Leu Ala Met Asn Lys Lys Gly
                85                  90                  95
Lys Leu Tyr Ala Ser Lys Lys Phe Thr Glu Glu Cys Lys Phe Lys Glu
            100                 105                 110
Arg Leu Leu Glu Asn Asn Tyr Asn Thr Tyr Ala Ser Ala Lys Tyr Arg
        115                 120                 125
Gly Trp Tyr Val Ala Leu Asn Lys Asn Gly Arg Pro Lys Arg Gly Ser
    130                 135                 140
Lys Thr Ser Pro Thr Gln Lys Ala Thr His Phe Leu Pro Arg
145                 150                 155
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